

In the Claims:

Please cancel claims 2-7, 10, and 14-18 and amend claims 1, 8, 9, 19, and 20 as follows:

1. (Amended) A process which comprises reacting hydrogen and oxygen in a solvent in the presence of a catalyst comprising a polystyrene-polymer-encapsulated palladium transition metal to produce hydrogen peroxide, wherein the palladium is supported on a titanium zeolite prior to polystyrene encapsulation.

2-7. Cancelled.

8. (Amended) The process of claim 1 ~~7~~ wherein the polystyrene-polymer-encapsulated palladium transition metal is produced by polymerizing styrene in an aqueous suspension in the presence of the titanium zeolite-supported palladium a transition metal source.

9. (Amended) The process of claim 1 ~~6~~ wherein the titanium zeolite is TS-1 polymer is a phosphorus functionalized polystyrene.

10. (Canceled).

11. (Original) The process of claim 1 wherein the solvent is selected from the group consisting of water, C₁-C₄ alcohols, carbon dioxide, and mixtures thereof.

12. (Original) The process of claim 1 wherein the solvent is a mixture of methanol and water.

13. (Original) The process of claim 12 performed in the presence of a protic acid.

14-18. (Canceled).

19. (Amended) The process of claim 13 ~~18~~ wherein the protic acid is hydrogen bromide.

20. (Amended) The process of claim 13 ~~18~~ wherein the protic acid is a mixture of hydrogen bromide and phosphoric acid.